CLAIMS

Having thus described the aforementioned invention, we claim:

1. An apparatus for training an animal in which an audible and a variable level electrical stimulation is applied to the animal, said apparatus comprising:

a transmitting unit sending a coded signal having an identification code, a stimulation type code, and a stimulation level code, said stimulation type code including a beep code and a shock code;

a receiver responsive to said coded signal from said transmitting unit;

a processor for decoding said coded signal;

a speaker producing a beep in response to said beep code, said speaker controlled by said processor;

a switch array controlled by said processor in response to said shock code, said processor controlling a plurality of pulse streams applied to said switch, a number of said plurality of pulse streams related to a value of said stimulation level code;

a transformer electrically connected to said switch array, said transformer producing an output pulse having a pulse voltage related to number of said plurality of pulse streams applied to said switch array; and

at least one electrode electrically connected to said transformer and located proximal the animal;

whereby said animal is stimulated by said electrode when said electrode is energized by said transformer.

2. The apparatus of Claim 1 wherein each of said plurality of pulse streams has a fixed pulse width, a fixed pulse frequency, and a fixed amplitude.

3. The apparatus of Claim 1 wherein said processor has a plurality of output connections that connect to a plurality of switches forming said switch array, each of said plurality of switches forcing a specified current through said transformer.

4. The apparatus of Claim 1 wherein said processor monitors said receiver for said coded signal, verifies said identification code, determines whether a beep is to be generated, determines whether a shock is to be generated, and generates said plurality of pulse streams.

5. The apparatus of Claim 1 wherein said transmitting unit includes a beep switch, a shock switch, and a stimulation level switch.

6. An apparatus for training an animal in which a variable level electrical stimulation is applied to the animal, said apparatus comprising:

a processor that monitors for a coded signal, verifies an identification code in said coded signal, determines whether an electrical stimulation is to be generated, and generates a plurality of pulse streams;

a switch array controlled by said processor, said processor controlling a number of said plurality of pulse streams applied to said switch array;

a transformer electrically connected to said switch array, said transformer producing an output pulse having a pulse voltage related to number of said plurality of pulse streams applied to said switch array; and

at least one electrode electrically connected to said transformer and located proximal the animal;

whereby said animal is stimulated by said electrode when said electrode is energized by said transformer.

7. The apparatus of Claim 6 wherein said processor determines whether a beep is to be generated and further including a speaker producing a beep, said speaker controlled by said processor.

8. An apparatus for training an animal in which a variable level electrical stimulation is applied to the animal, said apparatus comprising:

a processor that monitors said receiver for a coded signal, verifies an identification code in said coded signal, determines whether an electrical stimulation is to be generated, and generates a plurality of pulse streams; and

a means for producing an electrical stimulation based on an output of said processor.

9. The apparatus of Claim 8 wherein said means for producing said electrical stimulation includes varying a current flowing through a transformer.

10. The apparatus of Claim 8 wherein said processor determines whether a beep is to be generated and further including a speaker producing a beep and further including a means for producing a beep.

11. An apparatus for training an animal in which a variable level electrical stimulation is applied to the animal, said apparatus comprising:

a means for receiving a coded signal;

a means for decoding said coded signal; and

a means for producing an electrical stimulation based on said coded signal.

12. The apparatus of Claim 11 wherein said means for producing said electrical stimulation includes varying a current flowing through a transformer.

13. The apparatus of Claim 11 further including a means for producing a beep.

14. In an apparatus for training an animal in which a variable level electrical stimulation is applied to the animal, a memory medium comprising software programmed to provide for controlling the stimulation applied to the animal by a process comprising:

a) receiving an electronic signal representing a request message to stimulate the animal, said request message including an identification code, and a stimulation level code;

b) determining whether an electrical stimulation is to be generated to stimulate the animal;

c) generating at least one pulse stream; and

d) outputting said least one pulse stream to produce a signal having a current corresponding to said stimulation level code.

15. The method of Claim 14 further including verifying said coded signal from said identification code.

16. The apparatus of Claim 14 further including:

e) determining whether a beep is to be generated to stimulate the animal; and

f) generating a control signal for operating a sound generating device;

17. A method for training an animal in which an audible and a variable level electrical stimulation is applied to the animal, said method comprising:

a) monitoring for a coded signal representing a request message to stimulate the animal, said coded signal including an identification code and a stimulation level code;

b) determining whether an electrical stimulation is requested;

c) producing said electrical stimulation if requested, said electrical stimulation based on a current level corresponding to said stimulation level code.

18. The method of Claim 17 further including verifying said coded signal from said identification code.

19. The method of Claim 17 further including the steps of:

d) determining whether an audible stimulation is requested; and

e) producing said audible stimulation if requested.

20. The method of Claim 17 wherein said step of producing said electrical stimulation includes:

c1) determining said current level corresponding to said stimulation level code;

c2) generating at least one input pulse stream having a fixed pulse width, a fixed frequency, and a fixed pulse voltage;

c3) applying at least one input pulse stream to a switch array to produce said current level in a pulse transformer; and

c4) producing a stimulation pulse stream from said at least one input pulse stream.

21. A method for training an animal in which a variable level electrical stimulation is applied to the animal, said method comprising:

a) monitoring for a coded signal representing a request message to stimulate the animal, said coded signal including an identification code and a stimulation level code;

b) determining whether an electrical stimulation is requested; and

c) if said electrical stimulation is requested:

c1) determining a number of pulse streams to be applied to a switch array to produce a current corresponding to said stimulation level code;

c2) generating said number of pulse streams having a fixed pulse width, a fixed frequency, and a fixed pulse voltage;

c3) generating a current from said number of pulse streams;

c4) generating an output pulse stream from said current; and

c5) making said output pulse stream available to the animal.

22. The method of Claim 21 further including the steps of:

d) determining whether an audible stimulation is requested; and

e) producing said audible stimulation if requested; and

23. The method of Claim 21 further including a step of verifying said coded signal from said identification code.

24. The method of Claim 21 wherein said coded signal includes a stimulation type code.

25. A method for training an animal in which a variable level electrical stimulation is applied to the animal, said method comprising:

a) monitoring a receiver for a coded signal representing a request message to stimulate the animal, said coded signal including an identification code and a stimulation level code; and

b) if an electrical stimulation is requested by said coded signal:

b1) determining a current corresponding to said stimulation level code;

b2) generating said current from at least one input pulse stream having a fixed pulse width, a fixed frequency, and a fixed pulse voltage;

b3) applying said current to a transformer to generate an output pulse stream from said input pulse stream; and

b4) making said output pulse stream available to the animal.

26. The method of Claim 25 further including the step of:

c) controlling an audible device if an audible stimulation is requested by said coded signal.

27. The method of Claim 25 wherein said coded signal includes a stimulation type code.

28. The method of Claim 25 further including a step of verifying said coded signal from said identification code.